PACKAGING

THE CAHNERS MAGAZINE FOR DECISION-MAKERS/JULY 1989

PACKAGING'S 100 GIANTS

Dairy's Unique Square Cups Reduce Costs

What Packages Will Supermarkets Stock?

Latest Developments In Pumps And Triggers

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A CAHNERS PUBLICATION VOLUME 34 NUMBER 10

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Cahners Publishing Company, A Division of Reed Publishing USA ☐ Specialized Business Magazines for Building & Construction ☐ Manufacturing ☐ Foodservice & Lodging ☐ Electronics & Computers ☐ Interior Design ☐ Printing ☐ Publishing ☐ Industrial Research & Technology ☐ Health Care ☐ Entertainment ☐ Specialized Consumer Magazines: American Baby and Modern Bride.

PACKAGING formerly Package Engineering including Modern Packaging (ISSN 0746-3820) is published monthly, except in February, March, June, and August when two issues are published, in national, demographic and separate editions by The Cahners Publishing Company, A Division of Reed Publishing USA, 275 Washington Street, Newton MA 02158-1630. Terrence M. McDermott, President; Charles E. Moodhe, Senior Vice President/General Manager, Chicago Division; Jerry D. Neth, Vice President/Publishing Operations; J.J. Walsh, Financial Vice President/Magazine Division; Thomas J. Dellamaria, Vice President/Production and Manufacturing. Circulation records are maintained at Cahners Publishing Company, 44 Cook Street, Denver, CO 80206-5800. Phone 303/388-4511. Second-class postage paid at Denver, CO 80206-5800 and additional mailing offices. Postmaster: Send address corrections to PACKAGING at our Denver address. PACKAGING formerly Package Engineering including Modern Packaging, copyright 1989 by Reed Publishing USA; Ronald G. Segal, Chairman and Chief Executive Officer; Robert L. Krakoff, President and Chief Operating Officer; William M. Platt, Sr. Vice President.

RECYCLING NEWS

Handbook Offers Realistic Advice

C. of C. cuts through confusion

New booklet from the U.S. Chamber of Commerce provides clear-cut advice to the packaging field regarding increasing concern about the environment.

"There are several simple statements of fact concerning the processing of waste for energy and materials," says Dr. Harvey Alter in the succinct and eloquent little book he wrote for the U.S. Chamber of Commerce. "They are so obvious that once stated they may be likened to the laws of nature—with tongue in cheek."

In just 50 pages, Alter's book, *The Greatly Growing Garbage Problem*, reports facts and the myths of the waste crisis. It is intended as a guide to municipal solid-waste management for communities and businesses. Together, the half-dozen summary laws listed in the book serve as a moderating influence. Here they are:

"Ye Shall Own the Waste." Communities wishing to contract for waste processing or entrepreneurs looking to process waste for a fee must have a contracturally guaranteed source of raw material. Deviation from this law presents financial risks.

"Ye Cannot Sell Garbage." Waste, says Alter, must be processed to produce products that meet their buyers' specifications.

"There Is No Gold in Garbage." The amount of the commodity recovered from waste multiplied by the price of that commodity equals the maximim gross revenue that could go to the processor. Those revenues are unlikely to fully cover expenses. The difference must be made up by tipping fees.

"Ye Shall Have Different Approaches for Different Places." Communities differ, so waste-management strategies must differ also, Alter says.

"Ye Cannot Take Something Nobody Wants and Make Something Else That Nobody Wants." Some people think that environmental concerns justify the use of waste products in making practically anything, Alter says. But, he notes, "Garbage is garbage; separation and processing must convert it to useful products."

"Ye Shall Always Have a Residue." Not everything is recoverable, Alter concludes. "No waste management method matches the hog producers' claim: 'We use everything but the squeal.' "

The Greatly Growing Garbage Problem is available from the U.S. Chamber of Commerce, Publications Fulfillment, 1615 H St., N.W., Washington, D.C. 20062. Price: $22 for members; $33 for non-members.

No New Resin Seen In Trash

Recycling won't make all-purpose plastic

Will there be a time in the near future when various waste plastics will be intermingled and transformed into some sort of all-purpose resin? Not likely, says DuPont.

Gerald Ehrens, DuPont manager of business development, says the company's current research and development probably will not lead to a significantly new resin formulation made from waste.

Despite DuPont's use of terms like "compatibilizers" and "plastic alloys" in relation to its recycling efforts, Ehrens expresses doubt that such diverse plastics as polyethylene, polystyrene and polyethylene terephthalate will ever be compatibilized to the extent that a widely applicable alloy would become feasible.

DuPont has announced plans to join Waste Management Inc. in developing the largest U.S. plastics recycling/reprocessing operation. The plastics manufacturer and the waste hauler plan to spend $5 million each.

Package Recyclability Affects Sales

'Often' replies exceed 'never' in '89 survey

The importance of package recyclability continues to rise as a product-purchase factor in the American consumer's mind.

Every year since 1986, PACKAGING magazine's survey has asked consumers how often the recyclability of packaging materials affected their purchasing decisions. Results have revealed a steady climb in the significance of this packaging characteristic.

As "never" responses have fallen from 29.2 percent to just slightly more than half that, "often" responses have doubled. This year, "often" overtook "never" for the first time.

With help from a respected opinion-research firm, PACKAGING mailed 1,000 questionnaires to U.S. households. Nearly 70 percent of the recipients returned their questionnaires.

A full report on environment-related results of the 1989 survey will be published in PACKAGING's August issue, which will be devoted entirely to the role of packaging in the waste crisis.

Beverage Group Turns Up Steam

New office to help tell recycling story

The National Soft Drink Association has established a new Solid Waste Programs Division to assist member companies and associations in addressing questions about waste.

Headed by E. Gifford Stack, NSDA's director of recycling programs, the new division is expected to grow to five full-time professionals this summer. The staff will include three waste-management policy advisors who will work directly with member bottlers and state associations faced with specific solid-waste and recycling issues.

According to Dwight C. Reed, NSDA president, beverage containers currently contribute 49 percent of the scrap revenue derived from curbside recycling programs. "We plan to communicate this message to key audiences," he says.

The new division's resources will be channeled into communications, research and development and localized assistance, Reed adds.

Top 100 Giants Grow By $4 Billion

The 100 largest consumers of packaging materials find strength in new product development and acquisitions

By Mark Spaulding
Associate Editor

Time after time, the lesson in today's volatile marketplace is clear. The way to grow sales, gain market share and dominate your industry is to either devastate your competition with rapid-fire new product development or simply buy them out in an acquisition.

These two themes stand out sharply in the corporate

LEADING BEVERAGE PACKAGERS

Rank	Company (Divisions)
1	Anheuser-Busch Companies, Inc. (Budweiser, Michelob, Carlsberg)
2	Coca-Cola Enterprises, Inc. (Coca-Cola, Sprite, Minute Maid)
3	Coca-Cola Company (Coca-Cola USA, Coca-Cola Foods)
4	PepsiCo, Inc. (Pepsi-Cola Co., Seven-Up)
5	Philip Morris Companies, Inc. (Miller, Lite, Lowenbrau)

SELECTED 1988 CAPITAL EXPENDITURES FOR PACKAGING MACHINERY & EQUIPMENT

Company	Amount
Anheuser-Busch Cos.	$200,000,000
Coca-Cola Enterprises	$76,000,000
Thomas J. Lipton Inc.	$40,000,000
General Cinema Beverages	$30,000,000
G. Heileman Brewing	$25,000,000
Dean Foods Co.	$20,000,000
General Motors Corp.	$15,000,000

strategies of firms throughout our 1989 Giants. Successful new product introductions coupled with the burden of marketing a former competitor's products ultimately pushes packaging expenditures higher and higher.

This two-pronged approach is reflected in the final figures. Our exclusive list of the top 100 Giants consumed more than $23.4 billion worth of packaging materials and finished containers during 1988, an increase of more than $4 billion over last year's top 100. The Giants now purchase about 36 percent of the total U.S. packaging industry's 1988 output, gobbling up an additional five percent more of the packaging produced in the U.S. than in 1987. Looking at it a bit closer, the Top 10 companies alone spent more than $11.1 billion on everything from bottles, cans and closures to labels, cases and palletizing stretch-film. The 100th-ranked company's packaging purchases grew by $5 million.

The 1989 Giants welcome 10 new members this year. These packagers made the list through the "new product innovation and acquisition" strategy. Acquisitions also made several companies disappear from the Giants. Most notable is Eastman Kodak's purchase of Sterling Drug, pushing Eastman up almost 40 places in the 1989 ranking.

How the survey was done

The results of our third annual Packaging Giants survey were compiled from the packaged-goods companies themselves. This was supplemented by sources such as U.S. Dept. of Commerce statistics, the *Fortune 500*, corporate annual reports, and

Food and beverages dominate the Top 10 Giants of the packaged-goods industry with names such as Anheuser-Busch, Philip Morris, RJR Nabisco and Coca-Cola Enterprises.

Top 100 Giants purchase 36% of the U.S. packaging-industry's total output

LEADING PHARMACEUTICAL PACKAGERS

Rank	Company (Divisions)
1	Johnson & Johnson (Johnson & Johnson, Hospital Services, McNeil, Ortho)
2	Eastman Kodak Co. (Sterling Drug, Glenbrook Laboratories, Winthrop Pharmaceuticals)
3	Bristol-Myers Co. (Bristol-Myers, Pharmaceutical & Nutritional Group, Health Care Group)
4	American Home Products Corp. (Wyeth-Ayerst, Sherwood, Whitehall)

LEADING COSMETICS PACKAGERS

Rank	Company (Divisions)
1	Avon Products, Inc. (U.S. Direct Selling, Retail)
2	Revlon Group (Revlon, Max Factor, Almay)
3	Faberge (Faberge, Organics)
4	Noxell Corp. (Cover Girl, Clarion, Noxema)
5	Alberto Culver Co. (Alberto VO5, TRESemme)

LEADING PACKAGERS BY MATERIAL TYPES*

Rank	Paperboard	Plastic	Metal	Glass
1	Philip Morris	Procter & Gamble	Anheuser-Busch	Anheuser-Busch
2	RJR Nabisco	Philip Morris	Philip Morris	Jos. Seagram
3	Anheuser-Busch	PepsiCo	RJR Nabisco	Philip Morris
4	Procter & Gamble	Kraft	Coca-Cola Ent.	Coca-Cola Ent.
5	Coca-Cola Ent.	Coca-Cola Co.	Coca-Cola Co.	PepsiCo

*PACKAGING estimates

our own Cahners Economics division.

We surveyed hundreds of firms to determine the amount spent on packaging materials and containers used to package any and all products sold in the U.S., including the value of any self-manufactured containers. When necessary, estimates were made by multiplying domestic sales for each type of product by an accurate percentage typically spent to package such products.

As expected, the highly packaging-intensive beverage industry dominates the 10 largest consumers in our 1989 Giants. No. 1 packager Anheuser-Busch spends upwards of $8.6 million on packaging every business day. Its total for 1988 exceeds the combined packaging buying power of the bottom 45 companies in our ranking.

No. 4 Coca-Cola Enterprises, even with its ability to run lean and mean with massive economies of scale, spends about $4.2 million each business day. The company's recent acquisition drive and growing popularity of products such as diet Coke will push the 28-state bottler's expenditures even higher in the future.

Capital expenditures

Thirteen Giants reported their packaging machinery capital expenditures to us for 1988. Although not a complete total, these firms purchased more than $218.7 million in capital equipment for packaging lines across the country.

PACKAGING estimates Anheuser-Busch's packaging-equipment purchases at about $200 million. Construction of the firm's 12th brewery in Fort Collins, Colo., as well as modernizations at its St. Louis packaging plant and Newark, N.J., and Columbus, Ohio, breweries demanded significant investments last year. Tea and side-dish maker Thomas J. Lipton reported a $40 million expenditure, while General Cinema Beverages purchased $30 million in a move to consolidate its bottling operations at Twinsburg, Ohio.

The "new-product innovation and acquisition" strategy will continue to serve the Giants well. Look for higher packaging expenditures in the future concentrated into a tighter, select group of U.S. consumer packaged-goods companies. ■

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Outstanding	448
Above Average	449
Average	450
Below Average	451

PACKAGING GIANTS

Rank	Company Profile	Packaging Expenditures (* PACKAGING est.)
1	**Anheuser-Busch** (St. Louis, MO) A-B made use of new container-production facilities to supply more than 3 billion cans and 3.5 billion aluminum lids for use by regionally-located brewing plants. Double-digit sales growth for Bud Light was recorded along with the debut of Michelob Dry.	$2,253,757,000*
2	**Philip Morris** (New York, NY) More than 100 new products introduced by General Foods USA. Oscar Mayer's Lunchables boosts share of processed-meat market to 35%. Miller Brewing buys Jacob Leinenkugel. Because P-M did not acquire Kraft until Dec. 7, the latter's packaging expenditures are shown separately.	$1,981,450,000*
3	**RJR Nabisco** (Atlanta, GA) Packaging-intensive Planters Lifesavers improved distribution to C-stores and smaller retailers. Nabisco Brands' new bakery near Raleigh, N.C., gives greater flexibility in packaging new products. Del Monte's domination of the canned-food aisle continued with microwave Vegetable Classics.	$1,232,000,000*
4	**Coca-Cola Enterprises** (Atlanta, GA) World's largest soft-drink bottler packages Coca-Cola products to 100 million people in 28 states, D.C. and Virgin Islands. Acquired bottlers in Memphis and Miami while divesting bottler Mid-America. Gained new territories in Maryland, Arkansas, Mississippi and Delaware.	$1,084,832,000*
5	**Pepsico** (Purchase, NY) Soft-drink growth up 17% with Diet Pepsi achieving double-digit volume growth for the fifth straight year. Company-owned bottling grew with purchase of Grand Metropolitan's soft-drink operations and 11 smaller bottlers. Frito-Lay's pound shipments advanced 3%.	$1,054,573,000*
6	**Coca-Cola Co.** (Atlanta, GA) Intense marketing fostered healthy growth for Coca-Cola USA's top brands. Diet Coke jumped 13%, followed by 7% gains for both Coca-Cola Classic and Sprite. In the OJ Wars, Minute Maid Premium Choice hit the shelves in several Eastern markets, packaged in high-tech, plastic bottles.	$1,031,400,000*
7	**Procter & Gamble** (Cincinnati, OH) Significant volume increases in laundry products. Packaging improvements to Vidal Sassoon and Vicks health-care products registered as notable increases in volume and sales. New products from Duncan Hines and Pringle's added greater volume in packaged-foods category.	$934,527,000*
8	**Kraft** (Glenview, IL) Packaging expenditures up about 11%. Kraft's major move into frozen foods with complete line of microwavable, cheese-dominant entrees means whole new category to package. Better packaging productivity boosted sales for Breyers, Light n' Lively, Sealtest and Breakstone.	$587,000,000*
9	**Joseph E. Seagram & Sons** (New York, NY) Cold water seems to have been poured on the hot wine-cooler market. Growth is down for its Golden Spirits Coolers. The firm completed the sale of its medium-priced Taylor and Paul Masson brands in the U.S. Purchased Tropicana orange-juice products from Beatrice Co. for $1.2 billion.	$567,000,000*
10	**Sara Lee** (Chicago, IL) Queen of frozen baked-goods reaped double-digit sales jumps for Snacks line. Jimmy Dean and Mr. Turkey subsidiaries also experienced growth. More than 50% of sales from Hanes Hosiery division come from products less than 3 years old, such as Silk Reflections and Sheer Elegance.	$471,120,000*
11	**Brown-Forman** (Louisville, KY) A combination of glitz and rich tradition were necessary to sell spirits amid a current industry-wide decline in consumption of 2% last year. Its California Cooler business alone dropped 28%, and a package redesign is expected to help increase sales this year.	$435,750,000*
12	**Whitman** (Chicago, IL) Pepsi-Cola General Bottlers increases sales by 48.8% with merger of RKO Bottlers and 2 other large franchises. Division now serves market of 23 million people and ships nearly 225 million cases/year. Pet Inc. acquired Orval Kent, leading supplier of fresh salads to foodservice.	$403,588,000*
13	**Stroh Brewing** (Detroit, MI) With loss of market share for brewery's flagship brand, company has totally revamped Stroh's and Stroh's Light packaging graphics and advertising campaigns. So long, Alex, the beer-loving Golden Retriever. Old Milwaukee and other regional brands maintain popularity.	$402,631,000*
14	**Kimberly-Clark** (Dallas, TX) High volume increases for Huggies diapers, Depend adult incontinence products and Kleenex facial tissues. Volume of Kotex and New Freedom declines slightly. Test-marketing for Once Overs pre-moistened, disposable wipes for bathroom continues in Springfield, Mo.	$389,081,000*
15	**Borden** (New York, NY) Regional acquisitions extend Borden's dairy product reach to 38 states. Successful 1988 roll-outs include Creamette as first national pasta brand, Classico as leading premium-range pasta sauce, and Krunchers! as fastest-growing, premium-line of salty-snack products.	$356,915,000*
16	**Campbell Soup** (Camden, NJ) With $1.5 billion in retail soup-product sales, Campbell's outpaces all comers. Volume growth in Swanson and Le Menu convenience meals continues. Pepperidge Farm's unit volume improves 5%. Packaging-intensive Souper Combos microwave meals distribution will be expanded during 1989.	$355,207,000*
17	**Eastman Kodak** (Rochester, NY) Last year's 54th-ranked packager leaps ahead with acquisition of Sterling Drug. Major consumer lines now include Lysol, Wet Ones, d-Con, Neo-Synephrine and Panadol. Sales of 35mm film set double-digit pace. New products such as Ektar 25 film prove to be major volume contributors.	$352,560,000*
18	**ConAgra** (Omaha, NE) Consumer Frozen Food introduces 61 new products last year amid major plant consolidation. Armour Food volumes down moderately. Country Skillet introduced Catfish Cuisine, first fresh marinated fish available at retail. New products expected from new-acquisition Blue Star Foods.	$340,481,000*
19	**Avon Products** (New York, NY) Avon Color, new line of 350 shades of lip, eye, face and nail colors, help increase cosmetic sales 11%. Skin-care sales jump 9%. Purchasing figures reported were $19 million for folding cartons, about $16 million for closures, and $10 million alone for lipstick components.	$322,000,000
20	**Adolph Coors** (Golden, CO) Overall volume rises 5.6% during year of virtually zero growth for domestic brewers. Innovations include Party Ball plastic beer sphere in a box. National rollout is planned. Also added longneck, non-returnable bottles for Coors, Coors Light and Extra Gold Draft.	$312,150,000

PACKAGING GIANTS

Rank	Company Profile	Packaging Expenditures (* PACKAGING est.)
21	**Scott Paper** (Philadelphia, PA) Introduced a number of new products and line extensions requiring their share of packaging expenditures. Among these were Hypo-Allergenic Cottonelle bathroom tissue, Baby Fresh Special Formula wipes with all-natural lotion, and Sofkins flushable personal cleansing cloths.	$307,166,000*
22	**G. Heileman Brewing** (LaCrosse, WI) "God's Country" brewer of Old Style packages its beers equally in metal and glass; buys roughly $120 million of each material. About $60 million goes for paperboard carriers and corrguated cases. Capital expenditures for packaging machinery reported at $25 million.	$300,000,000
23	**Nestle Holdings** (Purchase, NY) Swiss foods conglomerate saw modest rise in overall packaging expenditures. Confectionery business remains strong, but new Stouffer's Dinner Supreme line meets fierce competition. Carnation debuts Friskies Kitten Formula cat food in baby-blue, gable-top milk carton.	$288,500,000*
24	**Pillsbury** (Minneapolis, MN) Pillsbury Doughboy and Jolly Green Giant continue winning ways. Hottest new item in refrigerated case is microwavable brownie sold in its own baking pan. Garden Gourmet and Pasta Accents sold over 30 million packages, contributed to a 9% increase in frozen vegetable volume.	$280,538,000*
25	**General Mills** (Minneapolis, MN) Market share growth for Big G cereals, Betty Crocker and Yoplait push GM's packaging expenditures up 7.5%. New Squeezit fruit drink, in fun, squeezable plastic bottles, is top seller in Western markets. Paperboard accounts for bulk of GM's purchases at 75%; plastic at 25%.	$270,000,000
26	**H.J. Heinz** (Pittsburgh, PA) Co.'s 112-year-old ketchup line garnered 2% increase in cases sold. Notable addition was room service-size ketchup—2-1/4 ounce glass bottle designed for hoteliers. Many of Star Kist's national pet food brands—9 Lives, Amore, Meaty Bone—registered sales volume records.	$251,425,000*
27	**American Home Products** (New York, NY) Dramatic sales increase results in 22.4% jump in packaging expenditures. Chef Boyardee Microwave Meals makes successful regional debut. Specific purchases include metal containers ($127 million), paperboard ($64 million), plastic ($49 million) and glass ($11 million).	$251,000,000
28	**Clorox** (Oakland, CA) Clorox Super Detergent and combination of record volume shipments for Hidden Valley Ranch dressings, Domani entrees and Moore's appetizers bump up Clorox's packaging expenditures company-wide. Reports spending $120 million alone for plastic bottles and caps.	$250,000,000
29	**General Cinema** (Chesnut Hill, MA) Case volume increases 5%, largely attributable to success of diet soft-drinks. Capital expenditures for packaging equipment at $30 million. Will likely drop out of Top 100 next year, having sold its bottling business to PepsiCo for $1.75 billion in cash earlier this year.	$250,000,000
30	**Revlon Group** (New York, NY) Drops a half dozen slots in Giants despite 3.3% increase in overall pkg. expenditures. Strong in plastics and paperboard for Max Factor and Almay cosmetics in blister packages. Upscale perfumes—Charles of the Ritz, Germaine Monteil—mainly in glass and paperboard.	$242,213,000*
31	**John Labatt** (Watchung, NJ) Completed acquisition spree. More than 33% of U.S. sales mainly in dairy products from subsidiaries such as Tuscan, Green Spring Dairy and EverFresh Juice. Pizza-maker Pasquale Food showed growth along with increasing imports of Canadian-brewed Labatt's beer.	$224,814,000*
32	**Quaker Oats** (Chicago, IL) Product introductions support real volume-growth strategy. Quaker Oat Squares, Gatorade extensions, Aunt Jemima, Van Camp's and Rice-A-Roni are only a few. Gaines Cycle pet food implements major restage through packaging. Fisher-Price debuts more than 80 new toy products.	$222,964,000*
33	**Ocean Spray Cranberries** (Lakeville/Middleboro, MA) Cranberry drinks, shelf-stable concentrates and aseptic TetraPaks continue upward sales, volume trend. Sauce product sales again ahead of 1987; expected to soar when plastic-packed Cran-Fruit cranberry sauces are fully on line. Foodservice businesses grow 21% in case sales.	$196,410,000*
34	**Beatrice** (Chicago, IL) Drops in Top 100 rankings after sale of Tropicana to Jos. Seagram. Hunt-Wesson debuts 50 new products. Swift-Eckrich goes on microwave rampage, introducing several Brown 'n Serve sausage products; some use barrier-plastics with modified-atmosphere packaging.	$194,000,000*
35	**Johnson & Johnson** (New Brunswick, NJ) McNeil Consumer Products launches new packaging for Tylenol Cold, Gelcaps and Imodium A-D. J&J Baby Products marketing Piz Buin Swiss sun-protection products. Hospital Services consolidates contracts with 1,700 U.S. hospitals to supply a multitude of products.	$183,622,000*
36	**Dean Foods** (Franklin Park, IL) Fluid milk sales up 14%; cheese remains unchanged. Unit sales up 8.5% for Larsen's Freshlike, Veg-All and other branded vegetables. Capital expenditures for packaging machinery approach $20 million. Material purchases: 35% paperboard, 35% plastic, 20% metal and 10% glass.	$180,000,000
37	**E.I. DuPont de Nemours** (Wilmington, DE) Fiber-segment volumes (Stainmaster carpet, Coolmax and Thermax polyester) up 3%. New Tenn. plant on line for ProSelect olefin carpet fiber. Agricultural chemical volumes jump 11%. Consumer product volumes from Corian building products and digital compact disks were 7%.	$178,669,000*
38	**Lever Brothers** (New York, NY) Lever Household continues to grow market share. Completes national launches for Morning Fresh Snuggle, Sunlight liquid and Surf detergent. Ships 500 million plastic bottles annually. First production facility in the South under construction at Cartersville, Ga.	$174,217,000*
39	**CPC International** (Englewood Cliffs, NJ) Volume growth—21%—recorded as Consumer Foods dominate principal business. Knorr products show 17% volume gain. Mazola and Hellman's brands jump 11% after entering Texas, California markets. Thomas'/Arnold's bakery and Mueller pasta volumes stay essentially the same.	$166,843,000*
40	**Dow Chemical** (Midland, MI) Record gains in Home/Food Care unit as well as full year of producing newly acquired Personal Care products skyrocket pkg. expenditures by 45.4%. Reports nearly $45 million spent on paperboard, $43.2 million for plastic materials and $29 million for metal containers.	$160,000,000

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Rank	Company Profile	Packaging Expenditures (* PACKAGING est.)
41	**General Motors** (Detroit, MI) Healthy automobile and parts sales nudge expenditures up 3.7%. Geo line of small vehicles launched by Chevrolet. Truck volume increases 12.9%. Packaging-equipment capital expenditures reach $15 million. Vast majority of purchases in paperboard (75.6%) and plastic (16.3%).	$158,800,000
42	**Thomas J. Lipton** (Englewood Cliffs, NJ) Packaging expenditures up respectable 7.1%. Variety of new products contributed—Cool Side Salads and Potatoes and Sauce mixes. Capital expenditures for pkg. machinery hit $40 million. Specific purchases featured $50 million in paperboard and $25 million in plastic materials.	$150,000,000
43	**Geo. A. Hormel** (Austin, MN) Packaging expenditures up 13.2% on overall sales decrease of 0.9%. Buys Chicken by George upscale line of marinated, fresh entrees. Top Shelf distribution expands to 65% of U.S. Dinty Moore and Hormel chili bow in retort pouch plastic cups. Demand increases for Industrial Products.	$149,740,000
44	**Hershey Foods** (Hershey, PA) Packaging expenditures up nearly 5% with help from Golden Almond Nuggets and new Bar None confections. Purchased U.S. operations of Cadbury-Schweppes PLC. Reports spending $60 million for paperboard, $40 million for plastic materials and $35 million for metals, including foils.	$145,000,000
45	**Kellogg** (Battle Creek, MI) Working on modernization of Battle Creek facilities. State-of-the-art cereal packaging line opens. New Memphis plant to serve growing South markets. Volume growth for Pop-Tarts leads to expansion at Muncy, Pa., facility. Huge wave of new oat bran-based products.	$134,862,000*
46	**Ralston-Purina** (St. Louis, MO) Pet-food introductions vary from Ribz and Beggin' Strips dog snacks to Kit 'N Kaboodle cat food and Whisker Lickin's cat treats. Volume off in Chex line due mainly to extraordinary influx of competitive products. Private label cookies and crackers volume up slightly.	$134,578,000*
47	**Castle & Cooke** (Los Angeles, CA) Dole Food adds both products and markets to extensive operations. Pre-cut, packaged fresh vegetables grow in demand by retail and foodservice. Canned pineapple sauce and tropical fruit salads introduced. New kinds of dried fruits and nuts go into national distribution.	$132,000,000*
48	**Dial Corp.** (Phoenix, AZ) Purchase of 20 Mule Team products nudges expenditures up 6.8%. Lunch Bucket entrees move into 77% of U.S. Liquid Dial expands nationally. Purchases: $52 million (paperboard), $32.5 million (plastic) and $26 million (glass). Also $5 million in packaging equipment.	$130,000,000
49	**M&M/Mars** (Hackettstown, NJ) Secretive candy-giant's product line runs gamut from Snickers and Dove ice cream novelties to Kudos granola snacks and Kal Kan dog food. Recent packaging innovations include Sheba cat and Pedigree dog foods in single-serving metal trays with easy-open foil lids.	$123,931,000*
50	**3M Co.** (St. Paul, MN) Products less than 5 years old are main engine of growth, representing $3 billion in sales. Double-digit volume gains for Commercial and Consumer Sector—Scotch, Carbonless and Post-it—reported. Co. enters beauty aids market with debut of Buf-Puf Daily Cleanser.	$123,150,000*

Rank	Company Profile	Packaging Expenditures (* PACKAGING est.)
51	**Ford Motor Co.** (Greenfield, MI) Expenditure rise of 11.5% reflects strong year for autos and parts. Truck sales reach all-time high. Electrical and Electronics divisions split to better concentrate on separate product lines. Bulk of pkg. materials fall into paperboard and plastic categories.	$120,197,000*
52	**Bristol-Myers** (New York, NY) Strong sales for Nuprin and successfully launched Tri-Buffered Bufferin push packaging expenditures upward by about 6%. Hair-care products such as Miss Clairol, Ultress, Nice 'n Easy and Loving Care all show good volume and sales growth. Repositions Keri skin-care line.	$118,478,000*
53	**American Brands** (Old Greenwich, CT) Divestiture of Sunshine Biscuits essentially offset by acquisition of E-II Holdings. Business now concentrated on tobacco products, distilled spirits and hardware/household products. Foot-Joy golf shoes and Titleist round out need for packaging materials and containers.	$103,076,000*
54	**Keebler** (Elmhurst, IL) Major move into salty snacks with Suncheros tortilla chips and O'Boises and Ripplin's potato-based snacks greatly increases flexible packaging needs. Hot seller: E.L. Fudge cookies. Plastics account for $50.8 million in purchases, followed closely by paperboard with $46.2 million.	$102,500,000
55	**IBP** (Dakota City, NE) Fresh-meat processing giant recently buys Perry, Ia., plant. Sixty-five percent of packaging expenditures reportedly in paperboard, with remaining dollars almost exclusively in plastic. Expects total expenditures to increase an additional 20% in 1989.	$101,000,000
56	**Colgate-Palmolive** (New York, NY) Six consecutive years of volume growth attributable to well-known brand names: Colgate, Palmolive, Ajax and Irish Spring. Tartar control products, Colgate Junior toothpaste contribute to 12% oral-care growth. Personal Care division launched more than 70 new products in 1988.	$100,000,000
57	**International Business Machines** (Armonk, NY) Tiny drop in domestic sales reflected in pkg. expenditures basically unchanged from 1987. Application Business Systems turns out six new AS/400 models. Last October, IBM shipped its 3,000,000th Personal System/2 desktop unit only 18 months after the line's introduction.	$99,028,000*
58	**Exxon** (New York, NY) World's largest oil company's major emphasis is on chemical packaging. Polymers Group focuses on products for textiles and pkg. industry itself, turning out olefin-based polymers, adhesives, specialty polyolefins for multilayer films and impact-resistant polypropylene.	$97,830,000*
59	**PPG Industries** (Pittsburgh, PA) Three principal businesses—glass, coatings and resins, and chemicals—all contributed to 7% growth in packaging expenditures. Pittsburgh Paints distribution expands through independent retailers. Introduces top-of-the-line Manor Hall latex exterior house paint.	$91,000,000
60	**General Electric** (Fairfield, CT) Drops in Top 100 after divestiture of GE/RCA TV business to Thomson S.A. of France. Acquires Roper electric and gas range business. Major-appliance concentration reflected in purchases: $81 million (paperboard), $7.2 million (plastic) and $1.8 million (metal).	$90,000,000

PACKAGING GIANTS

Rank	Company Profile	Packaging Expenditures (* PACKAGING est.)
61	**Pfizer** (New York, NY) Acquired Oral Research Labs, maker of Plax pre-brushing oral rinse. Terre Haute, Ind., plant expansion necessary to supply demand for polydextrose for use in "light" food formulations. Popular consumer brands include Visine, Ben-Gay, Barbasol, Unisom and Desitin.	$87,360,000*
62	**Mobil Oil** (New York, NY) Industrial-packaging need for resin and stretch-wrap. Plastic bottles dominate for motor-oil and lubricants. Capital expenditures for packaging machinery top $9 million. Specific purchases include paperboard ($42 million), plastic ($36 million) and metal containers ($8 million).	$86,000,000
63	**Texaco** (White Plains, NY) Very slight decline in domestic sales drops company a few notches in ranking. Lubricant sales arm of Texaco USA packaging Havoline Motor Oil to great success, moving the product to No. 3 in sales. Emphasis growing on specialty chemicals: amines, detergents and fuel additives.	$82,360,000*
64	**Tyson Foods** (Springdale, AR) Co. increasing emphasis on "value-enhanced" poultry products requiring more complex and costly packaging. Purchases primarily in paperboard, secondarily in plastic. New consumer products include Flyers spicy chicken wings, Microwave patties/nuggets and Original fresh fillets.	$81,200,000
65	**United Brands** (Cincinnati, OH) Chiquita is one of the most recognized names in the world. Application of the brand to new lines of fresh and frozen products push pkg. expenditures up 8%. John Morrell division's strength lies in regional brands and growing national recognition for Morrell and Rath Black Hawk.	$76,555,000*
66	**Tenneco** (Houston, TX) Packaging Corp. of America reports 5th consecutive record year, purchasing molded fibre company to supply West Coast. Monroe Auto Equipment sales up 15%, and Walker Muffler achieves 9% sales jump. Tenneco Automotive Retail experiences only slight growth in domestic market.	$76,452,000*
67	**Holly Farms** (Memphis, TN) No. 3 chicken processor sells leading brand of fresh chicken through supermarkets. Introductions include pre-cooked and packaged Oven Roasted Chicken and fresh Marinated Breast Fillets. Dixie Portland ranks as 7th largest flour miller serving Southeast and Midwest.	$71,245,000*
68	**Land O'Lakes** (Minneapolis, MN) Packaging expenditures remain unchanged for maker of America's No. 1 selling butter. New tamper-evident spreads packaging debuts. Revises package graphics for Lake to Lake. Paperboard purchases reach $25 million, with packaging-equipment capital expenditures at $5 million.	$70,000,000
69	**Monsanto** (St. Louis, MO) Moderate increase of 6.7% in pkg. expenditures. Volumes of agricultural products based on glyphosate herbicide jump 29%. Sales of diet soft-drinks containing 100% NutraSweet brand sweetener continue to climb. Simpless all-natural fat substitute is under review by FDA.	$63,520,000*
70	**Miles Laboratories** (Elkhart, IN) Major consumer health-care brands—Alka-Seltzer, Bactine, One-A-Day vitamins—remain strong. S.O.S., Glassworks and Cutter insect repellent dominate Consumer Household Division. Consolidated acquisition of Columbus Dental under Miles Pharmaceuticals.	$60,000,000
71	**Chrysler** (Highland Park, MI) Consolidation of American Motors acquisition complete, hiking packaging needs for Jeep Wranglers, Cherokees, and Eagle Premier product lines. Strong sales of minivans and mid-size Dodge trucks also help boost Mopar parts and work-in-process packaging requirements.	$59,756,000*
72	**Gerber Products** (Fremont, MI) Baby food volume gains 10% on success of First Foods; achieves 90% penetration of U.S. supermarkets during first full year of national distribution. Industry firsts: baby juice in 2 sizes of high-barrier, plastic bottles. Extends Gerber identity to packaging for NUK products.	$59,116,000*
73	**Faberge** (New York, NY) Packaging expenditures increase 13.1% in line with rapid sales growth. Drops slightly in rankings among major cosmetics packagers. Company placing greater emphasis on personal-care product lines such as Organics shampoos, expanding shelf presence via packaging.	$57,947,000*
74	**Baxter Healthcare** (Deerfield, IL) Rising sales yields corresponding 9.6% increase in pkg. expenditures, despite reduced costs of many items through consolidated purchasing. Breakdown shows 50% paperboard, 25% plastic, 15% metal and 10% glass. Brands include Baxter, Pharmaseal, Scientific Products and Dade.	$57,000,000
75	**Morton Thiokol** (Chicago, IL) Salt Group sales climb 4%, backed by ice control, water conditioning and table salt brands. Morton Pellets with System Saver gain 8%. Convenient 25-pound blocks for water conditioning enter Midwest markets. Specialty chemical sales up 17% with emphasis on automotive market.	$56,728,000*
76	**Merck & Co.** (Rahway, NJ) Human health products make major contribution to 1988 gains. Products include Vasotec for high blood pressure; Mevacor cholesterol-lowering agent; Primaxin antibiotic; and Pepcid, for ulcers. Animal health products, mainly for parasite control, used in a variety of livestock.	$56,042,000*
77	**Amoco** (Chicago, IL) Polyester raw-material volume grows 8%. Genesis residential carpet fiber successfully launched in Southeastern markets. Purchased Bedford plastics, maker of dual-ovenable CPET food trays. Spent $1 million alone for plastic caps for its motor-oil bottles.	$52,800,000
78	**Shell Oil** (Houston, TX) Introduces Super 2000 10W-30 motor oil for passenger cars, along with Truck Guard motor oil specially formulated for light trucks, vans and RVs. Record levels for detergent, resin and Kraton thermoplastic rubber businesses. Agricultural chemicals and polymers up slightly.	$50,547,000*
79	**Whirlpool** (Benton Harbor, MI) Whirlpool Group expands distribution of DesignerStyle refrigerators. Kenmore Appliance Group grows with production of upright vacuums. Kitchenaid adds new product lines, expands manufacturing base and meets surging demand for glass cooktops and built-in refrigerators.	$50,000,000*
80	**Premark International** (Deerfield, IL) Slower introductory pace for new U.S. Tupperware products. Sales are up slightly for Hobart and Vulcan foodservice equipment. West Bend housewares increases its sales and retail-outlet penetration by enhancing core product line with new sizes and color line extensions.	$46,228,000*

PACKAGING GIANTS

Rank	Company Profile	Packaging Expenditures (* PACKAGING est.)
81	**Smithfield Foods** (Smithfield, VA) Higher demand for Hamilton's Easy-Karv lower-salt hams and semi-boneless hams drive up unit volume. Esskay and Patrick Cudahy also show gains. Spent $18 million on paperboard and $8 million on plastic films. Packaging-machinery capital expenditures about $2.75 million.	$45,000,000
82	**Schering-Plough** (Madison, NJ) Allergy, cold-products grow 18% on gains by O-T-C Drixoral and Vancenase prescription drugs. Unveils new colors of DuraSoft contact lenses. New Maybelline cosmetics push sales up 10%. Coppertone sunscreens gain market share on consumer concerns over the dangers of skin cancer.	$44,964,000*
83	**Alberto Culver** (Melrose Park, IL) Toiletries Div. sales growth led by VO5 shampoo and conditioner. Introduces Bold Hold styling line targeted at teenagers. Significant volume gains by TRESemme professional hair-care products. Successful nationwide launch of Molly McButter and Mrs. Dash extensions.	$43,694,000*
84	**SmithKline Beckman** (Philadelphia, PA) Consumer products show vitality as promotion of Contac for allergies and Ecotrin aspirin for prevention of second heart attack help sales jump 20%. Animal health products rise 8%. Unified SmithKline & French records 7% sales decline due to fall-off of Tagamet and Dyazide in U.S.	$42,951,000*
85	**Noxell** (Hunt Valley, MD) Cover Girl retains No. 1 position in mass-market cosmetic sales and unit volume. Clarion gains market share in all categories; lipstick business doubles in dollars and units. DifRinse cold cream debuts in third quarter. Lestoil cleaner also registers revenue and unit volume increases.	$42,770,000*
86	**Abbott Laboratories** (Abbott Park, IL) Packaging expenditures rise 11%. Pediatric pharmaceuticals led by Pedialyte oral solution. Murine Lens Care completes first full year on the market. Consumer standouts: Selsun Blue, Clear Eyes eye drops, Tronolane and Similac Special Care formula for low birth-weight babies.	$41,457,000*
87	**Olin Corp.** (Stamford, CT) Maker of HTH, Pace and Sun brands of swimming-pool chemicals increases pkg. expenditures by 5.2%. Breakdown: 37% plastic, 31% paperboard, 25% metal and 7% glass. Brands include Olin Hunt specialty products, Waycoat resists, MicroStrip photographics and High Purity acids.	$40,500,000
88	**J.M. Smucker Co.** (Orrville, OH) Foodservice business—under Smucker's, Dickinson's and Knudsen Family brands—boosted by unit growth. New products: Simply Fruit line of spreads, Goober Snack Pack and new flavors of 100% blended juice products. Expands distribution of Special Recipe ice cream toppings.	$38,338,000*
89	**Welch Foods** (Concord, MA) Innovator of 1980's barrier, squeeze bottles for jams and jellies brings back 1950's cartoon-decorated tumbler-jars now updated with dinosaur designs. Products: Welch's Orchard 100% blended fruit juices, along with established lines of Original Concord Grape and White Grape juices.	$37,552,000*
90	**Goodyear Tire & Rubber** (Akron, OH) Besides manufacturing tires, Goodyear also makes broad spectrum of rubber products for auto/industrial use, chemical and plastic products for the transportation industry. Purchase breakdown shows 35% paperboard, 35% plastic, 23% metal containers and 7% glass.	$37,442,000

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91	**Masco** (Taylor, MI) Markets 1,000 different faucet models under Delta, Peerless, Artistic Brass brands. Sells about $400 in merchandise for every newly constructed home in the country. Second-largest furniture maker with 5% share. Brands: Henredon, Drexel Heritage, Link-Taylor, Dixie.	$36,000,000
92	**Interstate Brands** (Kansas City, MO) Cake Division unit volume expands 5.9%. Dolly Madison aggressively introduces new products, including a dozen new snack cake, pie and Danish items. Bread Division unit volume jumps 7.2%. Major bread brands include Butternut, Eddy's, Holsum, Sweetheart and Purity.	$35,910,000*
93	**Wilson Foods** (Oklahoma City, OK) Packaging expenditures climb roughly 4.4%. Capital equipment purchases for packaging reported at $1.85 million. Company's fresh, frozen and processed meat products sold primarily to supermarkets, also supplies McDonald's, Hardee's, Pizza Hut and 7-Eleven stores.	$34,983,828
94	**Corning Glass Works** (Corning, NY) Acquires Revere Ware cookware to help build commanding department-store presence, along with established Visions and Crown Coring lines. Packaging expenditures rise 4%. Specific packaging-material breakdown includes $26.5 million in paperboard and $6 million in plastic.	$33,548,000
95	**McCormick & Co.** (Hunt Valley, MD) New products introduced are Pasta Prima seasoning mixes, Chicken Sauce Blends and Parsley Patch no-salt seasonings. Consumer Products unit volume up 3.8%. Supplies ingredients to 80% of Top 100 U.S. food processors. Divested Tio Sancho Mexican food business.	$32,516,000*
96	**Rohm & Haas** (Philadelphia, PA) Expenditures rocket 18.1% on 17% increase in unit volume for polymers, resins and monomers. Plastics-additives up at slower 3.2% pace. Industrial chemicals volume climbs 9%. Breakdown reported as paperboard ($14.6 million), plastic ($11.4 million) and metal ($6.5 million).	$32,500,000
97	**Upjohn** (Kalamazoo, MI) Domestic sales leaders for 4th consecutive year were Xanan anxiolytic agent, Halcion hypnotic and Micronase oral antidiabetes agent. Sales of Motrin declines as generic substitution erodes market share. Rogaine treatment for male pattern baldness approved for U.S. marketing.	$32,266,000*
98	**Gillette** (Boston, MA) Relaunches Silkience shampoos and conditioners. Restages 1960s hair-care success Dippity-do gel. Toiletries and cosmetics sales remain unchanged, while shave-cream products decline. Also markets line of Braun shavers and home appliances, and Oral-B toothbrushes and toothpastes.	$32,186,400*
99	**Squibb** (Princeton, NJ) Five prescription pharmaceuticals alone each achieve volumes of $100 million: Azactam, Capoten, Capozide, Corgard and Isovue. Medical-product sales climb 11%. Squibb Care, a new low-cost line of consumer health-care products, is successfully test-marketed.	$31,632,000*
100	**Emerson Electric** (St. Louis, MO) Packaging expenditures remain unchanged for 1988. Company finds success with new consumer products such as Skil Super Twist line of rechargable, cordless screwdrivers. Computer Support Group markets range of power and environmental controls for mainframe computer systems.	$31,000,000